

REMARKS

I. Formalities

Applicant thanks the Examiner for acknowledging the claim for priority under 35 U.S.C. § 119, and for acknowledging receipt of the certified copy of the priority document.

However, the Examiner did not sign and forward a copy of the PTO/SB/08 Form submitted by Applicant with the Information Disclosure Statement filed on February 9, 2004. Accordingly, Applicant respectfully requests that the Examiner sign the aforementioned PTO 1449 Form, initial the references cited therein, and return it along with the next office paper.

Applicant thanks the Examiner for indicating that the Formal Drawings filed on February 9, 2004 are accepted.

II. Status of the Application

By the present amendment, Applicant amends claims 2-7, 11, 15 and 25-29. Applicant also hereby cancels claims 1, 14, 17-20, 22-24 and 32-35 without prejudice or disclaimer. Claims 2-13, 15-16, 21 and 25-31 are all the claims pending in the Application. Claims 1-7, 9, 11 and 13-35 have been rejected.

The present Amendment addresses each point of objection and rejection raised by the Examiner. Favorable reconsideration is respectfully requested.

III. Allowable Subject Matter

Applicant thanks the Examiner for indicating that claims 8, 10 and 12 would be allowed if rewritten in independent form. However, Applicant respectfully requests that the Examiner hold in abeyance such rewriting until the Examiner has had an opportunity to reconsider (and withdraw) the prior art rejection of the other claims.

The 02/23/07 Office Action fails to set forth any detailed grounds of rejection with respect to claim 21. Therefore, Applicant submits that claim 21 is immediately allowable over the cited references.

IV. Claim Rejections Under 35 U.S.C. § 112

The Examiner has rejected claims 5-7, 11, 17, 19, 25-29, 32 and 34 under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. In particular, the Examiner alleges that, in claims 5-7, 11, 17 and 19 Applicant claims “a proper pulse time width,” however, the Examiner alleges that it is not clear what the term “proper” is referring to.

As an initial matter, Applicant notes that claims 17, 19, 32 and 34 have been canceled without prejudice or disclaimer and, therefore, the Examiner’s rejections with respect to these claims are now moot.

Moreover, Applicant has amended claims 5-7, 11 and 25-29, as set forth above, to delete the term “proper.” Therefore, Applicant submits that the Examiner’s rejections of claims 5-7, 11 and 25-29 are now moot.

Specifically, Applicant has amended claims 5-7, 11 and 25-29 to recite the feature of “an arbitrary pulse time width for optical communication.” Adequate support for these amendments is provided *at least* by paragraph 69 of the originally filed specification. Further, Applicant submits that the precise meaning of “an arbitrary pulse time width for optical communication” is readily discernable to one of ordinary skill in the art and, thus, satisfies the requirements of 35

U.S.C. § 112.¹ Indeed, the Examiner “should allow claims which define the patentable subject matter with a reasonable degree of particularity and distinctness. MPEP §2173.02.

Accordingly, Applicant respectfully requests that the Examiner withdraw these rejections.

V. Claim Rejections Under 35 U.S.C. § 102

The Examiner has rejected claims 1-5, 9, 22-23 and 25-27 under 35 U.S.C. § 102(a) as allegedly being anticipated by “All-optical Regeneration based on Optical Clock Recovery with Mode-Locked LDs” to Kurita et al. (hereinafter “Kurita”). Applicant respectfully traverses these rejections for *at least* the reasons set forth below.

As an initial matter, Applicant notes that claims 1 and 22-23 have been canceled without prejudice or disclaimer and, therefore, the Examiner’s rejections with respect to these claims are now moot.

Moreover, according to the MPEP, “a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” MPEP § 2131. Applicant respectfully submits that claims 2-4, 9 and 25-27 positively recite limitations which are not disclosed (or suggested) by Kurita.

A. Independent Claim 4

For example, independent claim 4 recites (among other things):

¹ *Metabolite Labs., Inc. v. Lab. Corp. of Am. Holdings*, 370 F.3d 1354, 1366, 71 USPQ2d 1081, 1089 (Fed. Cir. 2004) (“The requirement to ‘distinctly’ claim means that the claim must have a meaning discernible to one of ordinary skill in the art when construed according to correct principles. Only when a claim remains insolubly ambiguous without a discernible meaning after all reasonable attempts at construction must a court declare it indefinite.”). *See also* MPEP §2173.02.

An optical signal regenerative repeater comprising:

at least one first optical 3R repeater which receives an optical communication signal pulse, and regenerates said optical communication signal pulse...

a second optical 3R repeater which receives said first regenerated signal pulse output by said first optical 3R repeater as an intermediate signal light, and regenerates said optical communication signal pulse based on said intermediate signal light.

The grounds of rejection allege that the element labeled “10 Gbps optical data,” and the element labeled “regenerated 20 Gbps optical data” in Figure 4 of Kurita corresponds to the “at least one first optical 3R repeater,” and the “second optical 3R repeater which receives said first regenerated signal pulse output by said first optical 3R repeater,” respectively, as claimed. Applicant respectfully disagrees with the grounds of rejection.

Claim 4 requires that the second 3R optical repeater receives the first regenerated signal pulse output by the first optical 3R repeater. However, Kurita fails to disclose or suggest this feature. In fact, Kurita discloses quite the opposite—that the alleged second optical 3R repeater is connected to the optical demultiplexer and not the optical 3R repeater. Additionally, the optical demultiplexer disclosed in Kurita does not have any 3R functions.

Therefore, Applicant submits that claim 4 is not anticipated by Kurita for *at least* these reasons. Further, the dependent claims 2-3 and 9 are patentable *at least* by virtue of their dependency on claim 4. As such, Applicant respectfully requests that the Examiner withdraw these rejections.

B. Independent Claim 25

In view of the similarity between the requirements of claim 25 and the requirements discussed above with respect to independent claim 4, Applicant respectfully submits that arguments analogous to the foregoing arguments as to the patentability of independent claim 4 demonstrate the patentability of claim 25. As such, it is respectfully submitted that claim 25 is patentably distinguishable over the cited Kurita reference *at least* for reasons analogous to those presented above. Further, Applicant submits that the dependent claims 26-27 are allowable *at least* by virtue of their dependency on claim 25. Thus, the allowance of these claims is respectfully solicited of the Examiner.

VI. Claim Rejections Under 35 U.S.C. § 103

The Examiner has rejected claims 3, 7, 11, 15, 17, 19, 24, 28-29 and 32 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Kurita, in view of “40-GHz Tunable Optical Pulse Generation from a Highly-Stable External Cavity Mode-locked Semiconductor Laser Module” to Hashimoto et al. (hereinafter “Hashimoto”). Applicant respectfully traverses these rejections for *at least* the reasons set forth below.

As an initial matter, Applicant notes that claims 17, 19, 24 and 32 have been canceled without prejudice or disclaimer and, therefore, the Examiner’s rejections with respect to these claims are now moot.

Furthermore, the dependent claims 3, 7, 11, 15, and 28-29 incorporate all the novel and non-obvious recitations of their respective base claims 4 and 25. For *at least* the reasons already discussed above, Kurita fails to disclose or suggest all the recitations of claims 4 and 25. Moreover, Hashimoto fails to remedy the deficient teachings of Kurita. Therefore, Applicant

submits that the dependent claims 3, 7, 11, 15, and 28-29 are patentable over the cited references *at least* by virtue of their dependency on claims 4 and 25, respectively. As such, Applicant respectfully requests that the Examiner withdraw these rejections.

VII. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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